

REMARKS

Reconsideration of the rejections set forth in the Office action mailed April 25, 2006 is respectfully requested. Claims 23-28 are pending. Claim 28 is under examination, claims 29-33 have been cancelled, and claims 23-27 are currently withdrawn from consideration.

I. Amendments

Claim 28 is amended to recite a plurality of different-sequence, same-length oligonucleotides. The recitation of "same length" and "different sequence" is based on the previous claim language reciting that "each end sequence contains the same number of basepairs" and "each end sequence in the plurality of oligonucleotides is unique", respectively. (The latter phrase has been deleted since it is redundant to the recitation of "different sequence" oligonucleotides.) The number of oligonucleotides in the plurality is based on the representative numbers of fragments shown in Table 1 of the specification, where the lowest number of fragments shown is 124.

The claim has been further amended to emphasize that the "end sequences" are double stranded, in view of each end sequence having "5 to 12 basepairs". The cleaved restriction site is recited to be single stranded, which finds support in the specification at page 8, lines 18-19 and 26-27, which states that the removal of the segment pairs from a vector, by enzymatic cleavage, preferably generates a "protruding strand".

Claim language pertaining to the preparation of the oligonucleotide composition, such as "from opposite ends of one such restriction fragment" and "ligated", has been deleted, in view of the Examiner's observation that the patentability of a product does not depend on its method of production. Claims 29-32 are cancelled for similar reasons.

No new matter is added by any of the amendments.

II. Rejections under 35 U.S.C. §112, Second Paragraph

Claim 28 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner stated that "If the first end sequence is located on 5' end of the

oligonucleotide while the second end sequence is located on 3' end of the oligonucleotide, the first part of the first “wherein” phrase indicates that the first end sequence must [be] separated from the second end sequence by one or two cleaved restriction sites...” (pages 2-3 of Office Action).

The applicants disagree with this conclusion. The claim language is consistent with an oligonucleotide having the following sequence of elements (where “CRS” refers to “cleaved restriction site”):

CRS | 1st end sequence | 2nd end sequence | CRS or, equivalently,

CRS | 2nd end sequence | 1st end sequence | CRS

As shown, the first end sequence is not "separated from the second end sequence by one or two cleaved restriction sites". This structure is also consistent with the description in the specification (e.g. column 5, lines 31-21 and column 7, lines 55-64 of parent patent U.S. Patent No. 6,054,276).

In view of the foregoing, the applicants submit that claim 28 complies with the requirements of 35 U.S.C. §112, second paragraph.

III. Rejections under 35 U.S.C. §102(b)

Independent claim 28 and its dependent claims were rejected under 35 U.S.C. §102(b) as being anticipated by New England Biolabs 96/97 Catalog, pages 36, 50, 108 and 109. This rejection is respectfully traversed for the following reasons.

A. The Claims

Claim 28 recites a composition comprising a plurality of at least 124 different-sequences, same-length oligonucleotides, each oligonucleotide in the plurality consisting of a first end segment and a second end segment, wherein

said first end segment consists of a first double stranded end sequence, having 5 to 12 basepairs, immediately adjacent to a single stranded cleaved restriction site;

said second end segment consists of a second double stranded end sequence, having 5 to

12 basepairs, immediately adjacent to a single stranded cleaved restriction site; said first end sequence and said second end sequence are attached directly together; and each end sequence contains the same number of basepairs.

B. The Prior Art

The Examiner refers in particular to a primer on page 109 of the cited catalog, having the following sequence: 5'd(ATTGTTGCCGGGAAGCTAGAGTAAGTAGTT)3'.

The Examiner notes that ATT (at the 5'end of the primer sequence) and GTT (at the 3' end of the primer sequence) are consistent with the sequences of cleaved restriction sites (Ssp I and Hpa I, respectively). Nonetheless, this structure does not meet the limitations of claim 28, for at least the following reasons. The claim recites a plurality of different-sequence, same-length oligonucleotides, not a single oligonucleotide. Furthermore, each oligonucleotide of the plurality contains first and second double stranded end sequences. The primer above is fully single stranded.

In view of the foregoing the applicant respectfully requests the Examiner to withdraw the rejection under 35 U.S.C. §102(b).

IV. Conclusion

In view of the foregoing, the applicant submits that the claims under examination are in condition for allowance. A Notice of Allowance is, therefore, respectfully requested.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (503) 727-2116.

Respectfully submitted,


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